Summary of the NIST report for the 44th CGSIC meeting

In this report, we describe the GPS time and frequency transfer operations at NIST

NIST uses common-view, one-way and carrier-phase methods in the GPS time and frequency transfer operations.

Applications of the GPS common-view time transfer include

- Contribute NIST time scale to the computation of TAI and UTC
- Global Time Service to calibrate remote clocks with respect to UTC(NIST)
- Synchronize the clocks in NIST radio stations in Fort Collins, Colorado and in Hawaii

Applications of the GPS one-way time transfer include

- Monitor the GPS signal with respect to UTC(NIST) for supporting the claims of frequency traceability to UTC(NIST) through the use of GPS
- Provide traceability for the NIST Frequency Measurement Analysis System Service
- Calibrate GPS disciplined oscillators

Activities of the GPS carrier-phase include

- Maintain the NIST – PTB link
- Collaborate with University of Colorado in improving the performance of carrier-phase
- Operate a multi-purpose geodetic receiver with the precise point positioning analysis software for the carrier-phase frequency transfer application.